CLAIMS

What is claimed is:

1. A composition comprising one or more immunogenic portions from one or more Group A streptococci serum opacity factor(s) (SOF) and a biologically acceptable diluent wherein said polypeptide is capable of eliciting a protective immune response when administered *in vivo* to a mammal.

2. The composition of claim 1 wherein said Group A streptococci is *Streptococcus pyogenes*.

3. The composition of claim 2 wherein said SOF is selected from the group consisting of *S. pyogenes* SOF2 (SEQ ID NO: 1), SOF4 (SEQID NO: 3), and SOF28 (SEQ ID NO: 5).

4. The composition of claim 2 wherein said SOF is selected from the group consisting of S. pyogenes SOF 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

5. A composition comprising one or more immunogenic portions from one or more Group C streptococci fibronectin-binding protein (FnBA) and a biologically acceptable diluent wherein said polypeptide is capable of eliciting a protective immune response when administered *in vivo* to a mammal.

6. The composition of claim 5 wherein said Group C streptococci is *Streptococcus dysgalactiae.*

7. The composition of claim 6 wherein said FnBA is selected from the group consisting of *S. dysgalactiae* FnBA.

8. A composition comprising one or more common immunogenic *S. pyogenes* SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27) and a biologically acceptable diluent or adjuvant.

9. A fusion protein comprising two or more immunogenic portions of one or more *S. pyogenes* serum opacity factor polypeptide wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of SOF 2 (SEQ ID NO: 1), 4 (SEQ ID NO: 3), 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 28 (SEQ ID NO: 5), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

10. The fusion protein of claim 9 wherein said fusion protein comprises two or more common immunogenic SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT

(SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), T TSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

11. A fusion protein comprising one or more immunogenic portions of an *S. pyogenes* serum opacity factor polypeptide and one or more immunogenic portions of a non-SOF *S. pyogenes* polypeptide.

12. The fusion protein of claim 11 wherein said immunogenic portions of an *S. pyogenes* serum opacity factor polypeptide comprises one or more common immunogenic *S. pyogenes* SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

13. The fusion protein of claim 11 wherein said non-SOF-based polypeptide is selected from the group consisting of *S. pyogenes* M protein, R28 protein, SPA, C5a peptidase, SFB1 (also know as protein F1), and FBP54.

14. A cocktail comprising two or more immunogenic portions of a two or more *S. pyogenes* serum opacity factor polypeptides wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of SOF 2 (SEQ ID NO: 1), 4 (SEQ ID NO: 3), 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 28 (SEQ ID NO: 5), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID

NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

15. The cocktail of claim 14 wherein one or more of said serum opacity factor polypeptides comprises a common immunogenic SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

16. A cocktail comprising one or more immunogenic portion of an *S. pyogenes* serum opacity factor polypeptide and one or more immunogenic portion of a non-SOF *S. pyogenes* polypeptide.

17. The cocktail of claim 16 wherein said cocktail comprises one or more common immunogenic *S. pyogenes* SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

18. The cocktail of claim 16 wherein said non-SOF-based polypeptide is selected from the group consisting of *S. pyogenes* M protein, R28 protein, SPA, C5a peptidase, SFB1 (also know as protein F1), and FBP54.

19. An isolated antibody that specifically binds to an *S. pyogenes* serum opacity factor wherein said antibody is capable of facilitating opsonization of said *S. pyogenes*.

20. The antibody of claim 19 wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of *S. pyogenes* SOF 2 (SEQ ID NO: 1), 4 (SEQ ID NO: 3), 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 28 (SEQ ID NO: 5), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

21. The antibody of claim 19 wherein said serum opacity factor is selected from the group consisting of SOF2 (SEQ ID NO: 1), SOF4 (SEQ ID NO: 3), and SOF28 (SEQ ID NO: 5).

22. The antibody of claim 15 wherein said serum opacity factor polypeptides comprises a common immunogenic SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

23. A method for eliciting an *in vivo* antibody response against *S. pyogenes* in a mammal, said method comprising the step of administering to said mammal a composition comprising a *S. pyogenes* SOF-based polypeptide.

24. The method of claim 23 wherein said serum opacity factor (SOF)-based polypeptide comprises one or more immunogenic portions from one or more serum opacity factor selected from the group consisting of SOF2 (SEQ ID NO: 1), SOF4 (SEQ ID NO: 3), and SOF28 (SEQ ID NO: 5).

25. The method of claim 23 wherein said serum opacity factor (SOF)-based polypeptide comprises one or more common immunogenic epitope of an *S. pyogenes* SOF polypeptide selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

26. The method of claim 23 wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of SOF 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

27. A method of eliciting an *in vivo* antibody response against *S. pyogenes* in a mammal, said method comprising the step of administering to said mammal a fusion protein comprising two or more immunogenic portions of one or more *S. pyogenes* serum opacity factor polypeptides wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of *S. pyogenes* SOF 2 (SEQ ID NO: 1), 4 (SEQ ID NO: 3), 8 (SEQ ID NO: 30), 9

(SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 28 (SEQ ID NO: 5), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

28. The method of claim 27 wherein said fusion protein comprises two or more common immunogenic SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

29. The method of claim 27 wherein said fusion protein comprises one or more immunogenic portions of an *S. pyogenes* serum opacity factor polypeptide and one or more immunogenic portions of a non-SOF *S. pyogenes* polypeptide.

30. The method of claim 27 wherein said fusion protein comprises one or more common immunogenic *S. pyogenes* SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

31. The method of claim 27 wherein said fusion protein comprises an immunogenic portion of a non-SOF-based polypeptide selected from the group consisting of *S. pyogenes* M protein, R28 protein, SPA, C5a peptidase, SFB1 (also know as protein F1), and FBP54.

32. A method for eliciting an *in vivo* antibody response against *S. pyogenes* in a mammal, said method comprising the step of administering to said mammal a cocktail comprising two or more immunogenic portions of a two or more *S. pyogenes* serum opacity factor polypeptides wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of *S. pyogenes* SOF 2 (SEQ ID NO: 1), 4 (SEQ ID NO: 3), 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 28 (SEQ ID NO: 5), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

33. The method of claim 32 wherein one or more of said serum opacity factor polypeptides comprises a common immunogenic SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

34. The method of claim 32 wherein said cocktail comprises one or more immunogenic portion of an *S. pyogenes* serum opacity factor polypeptide and one or more immunogenic portion of a non-SOF *S. pyogenes* polypeptide.

35. The method of claim 32 wherein said cocktail comprises one or more common immunogenic *S. pyogenes* SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).

36. The method of claim 32 wherein said non-SOF-based polypeptide is selected from the group consisting of S. pyogenes M protein, R28 protein, SPA, C5a peptidase, SFB1 (also know as protein F1), and FBP54.

37. A method of treating an S. pyogenes infection in a mammal, said method comprising the step of administering to said mammal an antibody that specifically binds to an *S. pyogenes* serum opacity factor wherein said antibody is capable of facilitating opsonization of said *S. pyogenes*.

38. The method of claim 37 wherein said *S. pyogenes* serum opacity factor is selected from the group consisting of *S. pyogenes* SOF 2 (SEQ ID NO: 1), 4 (SEQ ID NO: 3), 8 (SEQ ID NO: 30), 9 (SEQ ID NO: 31), 11 (SEQ ID NO: 32), 13 (SEQ ID NO: 33), 15, 22 (SEQ ID NO: 34), 25 (SEQ ID NO: 35), 27 (SEQ ID NO: 36), 28 (SEQ ID NO: 5), 44 (SEQ ID NO: 37), 48 (SEQ ID NO: 38), 49 (SEQ ID NO: 39), 58 (SEQ ID NO: 40), 59 (SEQ ID NO: 41), 60 (SEQ ID NO: 42), 61 (SEQ ID NO: 43), 62 (SEQ ID NO: 44), 63 (SEQ ID NO: 45), 64, 66 (SEQ ID NO: 46), 68 (SEQ ID NO: 47), 73 (SEQ ID NO: 48), 75 (SEQ ID NO: 49), 76 (SEQ ID NO: 50), 77 (SEQ ID NO: 51), 78 (SEQ ID NO: 52), 79 (SEQ ID NO: 53), 81 (SEQ ID NO: 54), 87 (SEQ ID NO: 55), 103, 104, 106, 107, 109, 110, 112, 113, 114, 117, 118, and 124.

39. The method of claim 37 wherein said serum opacity factor is selected from the group consisting of SOF2 (SEQ ID NO: 1), SOF4 (SEQ ID NO: 3), and SOF28 (SEQ ID NO: 5).

40. The method of claim 37 wherein said serum opacity factor polypeptides comprises a common immunogenic SOF epitopes selected from the group consisting of ETEPQTMDVEQYTVDKENS (SEQ ID NO: 15), DIFDVKREVKTNGDGTLDVLT (SEQ ID NO: 16), PKQIDEGADVMALLDVSQKM (SEQ ID NO: 17), FDKAKEQIKKLVTTLT (SEQ ID NO: 18), YNRRNSVRLMTFYR (SEQ ID NO: 19), WGDVLQGAIHKAREIFNKEK (SEQ ID NO: 20), RQHIVLFSQGESTFSYDIK (SEQ ID NO: 21), TTSNPLFPWLPIFNHT (SEQ ID NO: 22), FDYSKRVGEGYYYHSFSDR (SEQ ID NO: 23), ERNEKFDNYLKEMSEGGK (SEQ ID NO: 24), DVDKADKFKDTLTEL (SEQ ID NO: 25), TKESLTWTISKD (SEQ ID NO: 26), and SLTLKYKLKVNKDKL (SEQ ID NO: 27).